

WHAT IS CLAIMED IS:

1. A method for inhibiting replication of KSHV comprising administration of a
5 compound that inhibits c-Kit signalling pathway.

2. A method for the treatment of Kaposi sarcoma comprising administration of a
compound that inhibits c-Kit signalling pathway.

10 3. A method for inhibiting replication of KSHV comprising administration of a
compound that inhibits type I sigma receptor signalling pathway.

4. A method for the treatment of Kaposi sarcoma comprising administration of a
compound that inhibits type I sigma receptor signalling pathway.
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5. A gene expression profile specific for the lytic phase of KSHV replication
comprising at least one gene selected from a group consisting of the genes listed in
Table 2.

20 6. A gene expression profile specific for the latent phase of KSHV replication
comprising at least one gene selected from a group consisting of the genes listed in
Table 2.

7. A microarray comprising nucleic acid encoding a probe to hybridize with one or
25 more of the genes selected from a group consisting of the genes listed in Table 2.

8. A method for diagnosing KSHV or the stage of KSHV replication comprising:

- obtaining a sample of cells suspected of being infected with KSHV;
- extracting RNA from the cells;
- contacting the RNA with a microarray comprising nucleic acid encoding a probe specific for one or more of the genes selected from a group consisting of the genes listed in Table 2; and
- determining the gene expression profile of the sample of cells and comparing it with the gene expression profile of KSHV infected cells.

9. A method for identifying modulators of KSHV replication, comprising:

- selecting a gene product from a group of genes consisting of the genes listed in Table 2;
- combining a test compound with the gene product encoded by the gene to determine whether the test compound inhibits or activates the gene product; and
- combining the test compound with KSHV infected cells to determine whether the test compound inhibits or activates replication of the KSHV.

10. A method for inhibiting replication of KSHV comprising administration of a compound that inhibits c-Kit and administration of a compound that modulates KSHV replication by a mechanism other than inhibition of c-Kit.

11. The method of claim 10, wherein said compound that modulates KSHV replication by a mechanism other than inhibition of c-Kit is selected from a group consisting of daunorubicin, doxorubicin, interferon alpha, retinoids, and taxol.

12. A method for the treatment of Kaposi sarcoma comprising administration of a compound that inhibits c-Kit and administration of a compound that modulates Kaposi sarcoma by a mechanism other than inhibition of c-Kit.

5 13. The method of claim 12, wherein said compound that modulates KSHV replication by a mechanism other than inhibition of c-Kit is selected from a group consisting of daunorubicin, doxorubicin, interferon alpha, retinoids, and taxol.

10 14. A method for inhibiting replication of KSHV comprising administration of a compound that inhibits type I sigma receptor and administration of a compound that modulates KSHV replication by a mechanism other than inhibition of type I sigma receptor.

15 15. The method of claim 14, wherein said compound that modulates KSHV replication by a mechanism other than inhibition of type I sigma receptor is selected from a group consisting of daunorubicin, doxorubicin, interferon alpha, retinoids, and taxol.

20 16. A method for the treatment of Kaposi sarcoma comprising administration of a compound that inhibits type I sigma receptor and administration of a compound that modulates Kaposi sarcoma by a mechanism other than inhibition of type I sigma receptor.

25 17. The method of claim 16, wherein said compound that modulates Kaposi sarcoma by a mechanism other than inhibition of type I sigma receptor is selected from a group consisting of daunorubicin, doxorubicin, interferon alpha, retinoids, and taxol.

18. A method of doing business comprising the steps of:

- a) determining the level of RNA expression for an RNA sample, wherein said RNA sample
- 5 b) is amplified and fluorescently labeled, hybridized to a microarray containing a plurality of nucleic acid sequences representing a gene expression profile, and said microarray is scanned for fluorescence;
- c) normalizing said expression level using an algorithm; and
- d) scoring said RNA sample against a gene expression profile

10 database.

19. The method of claim 18, wherein said RNA sample is obtained from a patient.

20. The method of claim 19, wherein said RNA sample is isolated from a patient

15 sample selected from the group consisting of blood, amniotic fluid, plasma, semen, bone marrow, and tissue biopsy.

21. The method of claim 18, wherein said microarray is a DNA microarray.

20 22. The method of claim 18, wherein said database is available via a web-browser interface.

23. The method of claim 18, wherein said web-browser provides gene sequence analysis tools

25 24. The method of claim 18, wherein a user pays a fee for access to said database.